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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/853,054	05/10/2001	Jamie A. Horn	56684US002	7349
32692	7590	12/01/2003	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			JOHNSON, EDWARD M	
			ART UNIT	PAPER NUMBER

1754

DATE MAILED: 12/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/853,054

Applicant(s)

HERN ET AL.

Examiner

Edward M. Johnson

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 7-15 is/are rejected.
- 7) ☐ Claim(s) 4-6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Goose et al. US 4,531,953.

Regarding claims 1 and 15, Goose '953 discloses a method of making an absorbent comprising: (a) impregnation of activated carbon with an amine compound by sublimation into the activated carbon (abstract), and (b) contacting the carbon with the amine in the gas phase (see column 2, lines 44-68 and column 3, lines 1-8) while heating (see column 2, lines 55-58).

Regarding claim 2, Goose '953 discloses amine (abstract).

Regarding claims 3 and 13, Goose '953 discloses 1.5 percent organic impregnant (see column 3, lines 45-47).

Regarding claim 14, Goose '953 discloses copper (see claim 2).

3. Claims 1-3, 7-8, and 10-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Liang et al. US 5,462,908.

Regarding claims 1 and 15, Liang '908 discloses a method of making impregnated carbon comprising sublimation of amine and diffusion of the amine molecules to the carbon surface and into the pores at elevated temperatures (see column 3, lines 50-63).

Regarding claims 2 and 8, Liang '908 discloses sublimation or vaporization of amines (column 3, lines 50-63).

Regarding claims 3 and 13, Liang '908 discloses 7% loading (see column 6, lines 50-53).

Regarding claim 7, Liang '908 discloses 400 mL of water (4g) to 440 grams of carbon (see column 5, lines 35-37 and 40-42).

Regarding claim 10, Liang '908 discloses adding to carbon and completion in $\frac{1}{2}$ to $\frac{3}{4}$ hour (see column 5, lines 15-18).

Regarding claims 11-12, Liang '908 discloses a vacuum oven for up to 16 hours (see column 5, lines 20-21).

Regarding claim 14, Liang '908 discloses copper (see column 5, lines 31-34).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at

the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liang '908 as applied to claim 7 above, and further in view of Goose '953.

Liang '908 fails to disclose an atomized spray.

Goose '953 discloses spraying onto the surface with a nozzle spraying device.

It is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the spraying device of Goose in the breathing absorbent of Liang because Goose discloses his spraying device in a process for making an breathing absorbent in gas masks to remove cyanogen chlorides over longer periods (see column 1, lines 7-13 and 60-62) and Liang specifically references the teachings of Goose as relevant prior art (see references cited and column 1, lines 40-46).

Allowable Subject Matter

6. Claims 4-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: It would not have been obvious to one of ordinary skill in the art at the time the invention was made to use an amine comprising TEDA and piperazine in the method of the instant claim 4 or an amine comprising TEDA in the method of the instant claim 6.

Response to Arguments

8. Applicant's arguments filed 10/20/03 have been fully considered but they are not persuasive.

It is argued that Goose '953 fails to teach the claimed combination of steps. This is not persuasive because Applicant appears to admit that Goose teaches impregnation by sublimation (see above), indicating both occur at the same time. Goose further teaches that his impregnation by sublimation involves the carbon being contacted in the gas phase (see above), which is Applicant's definition of "non-bulk contact" according to the instant specification (see instant specification, paragraph bridging pages 6-7).

It is argued that to the extent Goose mentions nozzles... were used. This is not persuasive because Goose discloses spraying directly onto the surface with a nozzle spraying device (see Examples), and also because apparatus limitations are not accorded undue weight in process claims.

It is argued that Liang also teaches away from the claimed combination of steps. This is not persuasive because Liang is not considered to "teach away" from the claimed invention since Liang does not teach that a fluid cannot be used. In fact, Applicant appears to admit that a gaseous fluid would read on the Liang disclosure.

It is argued that we respectfully submit that Goose has been misconstrued. This is not persuasive because Goose discloses spraying directly onto the surface with a nozzle spraying device (see Examples), and also because apparatus limitations are not accorded undue weight in process claims (see above).

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated


from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 703-305-0216. The examiner can normally be reached on M-F 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 703-308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

EMJ
November 19, 2003


STANLEY S. SILVERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700